### Amendments to the Claims

This listing of claims will replace all prior versions and listings of the claims in the application:

#### What is claimed is:

1. (Previously Amended) A compound of formula (I) or a pharmaceutically acceptable salt thereof:

$$R^1$$
 $(R^2)_n$ 
 $(I)$ 

wherein:

R<sup>1</sup> represents a group of formula (A):

wherein R<sup>4a</sup> represents C<sub>1-6</sub> alkyl, oxo, aryl, heteroaryl or heterocyclyl; R<sup>5a</sup> represents hydrogen, -C<sub>1-6</sub> alkyl, -C<sub>1-6</sub> alkylC<sub>1-6</sub> alkoxy, -C<sub>1-6</sub> alkoxycarbonyl, -C<sub>3-8</sub> cycloalkyl, -aryl, -heterocyclyl, heteroaryl, -C<sub>1-6</sub> alkyl-aryl, -CH(aryl)(aryl), -C<sub>1-6</sub> alkyl-C<sub>3-8</sub> cycloalkyl, -C<sub>1-6</sub> alkyl-heteroaryl or -C<sub>1-6</sub> alkyl-heterocyclyl, wherein R<sup>5a</sup> may be optionally substituted by one or more substituents which may be the same or different, and which are selected from the group consisting of halogen, hydroxy, cyano, nitro, oxo, haloC<sub>1-6</sub> alkyl, polyhaloC<sub>1-6</sub> alkyl, haloC<sub>1-6</sub> alkoxy, polyhaloC<sub>1-6</sub> alkoxy, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, C<sub>1-6</sub> alkoxy, C<sub>1-6</sub> alkoxycarbonyl, C<sub>1-6</sub> alkoxyC<sub>1-6</sub> alkyl, C<sub>3-7</sub> cycloalkylC<sub>1-6</sub> alkoxy, C<sub>1-6</sub> alkanoyl, C<sub>1-6</sub> alkoxycarbonyl, C<sub>1-6</sub> alkylsulfonyl, C<sub>1-6</sub> alkylsulfonyloxy, C<sub>1-6</sub> alkylsulfonylC<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkylsulfonyloxy, C<sub>1-6</sub> alkylsulfonylC<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkylsulfonamidoC<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkylamidoC<sub>1-6</sub> alkyl or a group NR<sup>15a</sup>R<sup>16a</sup>, -CONR<sup>15a</sup>R<sup>16a</sup>, -NR<sup>15a</sup>COR<sup>16a</sup>, -NR<sup>15a</sup>SO<sub>2</sub>R<sup>16a</sup> or -SO<sub>2</sub>NR<sup>15a</sup>R<sup>16a</sup>, wherein R<sup>15a</sup> and R<sup>16a</sup> independently represent hydrogen, C<sub>1-6</sub> alkyl, aryl or together with the nitrogen to which they are attached may form a nitrogen containing heterocyclyl group;

m is 1;

p is 0, 1, 2 or 3, or when p represents 2, said R<sup>4a</sup> groups may instead form a bridging group consisting of one or two methylene groups;

or R<sup>1</sup> represents a group of formula (F):

$$(R^{4f})_t$$
 $(R^{5f})_u$ 
 $(F)$ 

wherein t is 0, 1 or 2;

u is 1 or 2;

 $R^{4f}$  represents  $C_{1-6}$  alkyl or when t represents 2, said  $R^{4f}$  groups may instead form a bridging group consisting of one or two methylene groups;

 $R^{5f}$  represents  $-C_{1-6}$  alkyl,  $-C_{1-6}$  alkyl $C_{1-6}$  alkoxy,  $-C_{3-8}$  cycloalkyl, aryl, heterocyclyl, heteroaryl,  $-C_{1-6}$  alkyl-aryl,  $-C_{1-6}$  alkyl- $C_{3-8}$  cycloalkyl,  $-C_{1-6}$  alkyl-heteroaryl,  $-C_{1-6}$  alkyl-heteroaryl, -aryl-heteroaryl, -aryl-heterocyclyl, -heteroaryl-aryl, -heteroaryl-heterocyclyl, -heterocyclyl-aryl, -heterocyclyl-heterocyclyl;

wherein R<sup>5f</sup> may be optionally substituted by one or more substituents which may be the same or different, and which are selected from the group consisting of halogen, hydroxy, cyano, nitro, oxo, haloC<sub>1-6</sub> alkyl, polyhaloC<sub>1-6</sub> alkyl, haloC<sub>1-6</sub> alkoxy, polyhaloC<sub>1-6</sub> alkoxy, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, C<sub>1-6</sub> alkylthio, C<sub>1-6</sub> alkoxyC<sub>1-6</sub> alkyl, C<sub>3-7</sub> cycloalkylC<sub>1-6</sub> alkoxy, C<sub>1-6</sub> alkanoyl, C<sub>1-6</sub> alkoxycarbonyl, C<sub>1-6</sub> alkylsulfonyl, C<sub>1-6</sub> alkylsulfonyl, C<sub>1-6</sub> alkylsulfonyloxy, C<sub>1-6</sub> alkylsulfonylC<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkylsulfonyloxy, arylsulfonyl, arylsulfonyloxy, arylsulfonamido, arylcarboxamido, aroyl, or a group NR<sup>15f</sup>R<sup>16f</sup>, -CONR<sup>15f</sup>R<sup>16f</sup>, -NR<sup>15f</sup>COR<sup>16f</sup>, -NR<sup>15f</sup>SO<sub>2</sub>R<sup>16f</sup> or -SO<sub>2</sub>NR<sup>15f</sup>R<sup>16f</sup>, wherein R<sup>15f</sup> and R<sup>16f</sup> independently represent hydrogen or C<sub>1-6</sub> alkyl or together form a heterocyclic ring;

Z<sup>f</sup> represents CO or SO<sub>2</sub>;

R<sup>2</sup> represents halogen, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, cyano, amino or trifluoromethyl;

n is 0, 1 or 2;

 $R^3$  represents -(CH<sub>2</sub>)<sub>q</sub>-NR<sup>11</sup>R<sup>12</sup>

wherein q is 2, 3 or 4;

 $R^{11}$  and  $R^{12}$  together with the nitrogen atom to which they are attached represent piperidine optionally substituted by one or two  $R^{17}$  groups; and  $R^{17}$  independently represents halogen,  $C_{1-6}$  alkyl, halo $C_{1-6}$  alkyl, OH, di $C_{1-6}$  alkylamino or  $C_{1-6}$  alkoxy.

2. (Currently Amended) A compound according to claim 1 which is a compound selected from the group consisting of

**E**3

**E4** 

E5

E7

E8

**E**9

E12

E13

E14

$$N \equiv - \sqrt{N}$$

E17

$$0 \\ N \\ N \\ 0$$

E18

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ &$$

$$\begin{array}{c|c} & & & \\ & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & \\ & & \\ & & \\ & \\ & & \\ & & \\ & \\ & & \\ & \\ & & \\ & \\ & \\ &$$

E21

$$F_3C$$

E22

$$N = - \left( \begin{array}{c} 0 \\ N \end{array} \right)$$

E23

$$H_3C$$

E26

E27

$$H_3C$$

E29

E30

$$N = N$$

E31

$$N =$$
 $N =$ 
 $N =$ 

$$\frac{1}{\sqrt{2}}$$

E33

$$H_3C$$
 $N$ 
 $N$ 

E34

$$CF_3$$

E35

$$H_3C$$
  $CH_3$   $O$   $N$   $O$ 

$$\bigcup_{CI} \bigcap_{CI} \bigcap_{CI}$$

E37

$$F_3C$$

E38

E39

E40

$$\begin{array}{c} O \\ \\ N \\ \\ O \end{array}$$

$$\bigcirc N \bigcirc N \bigcirc N$$

E43

$$N = 0$$

E44

E46

$$O \sim N$$

E47

$$F_3C$$

E48

$$F_{3}C$$

$$F_3C$$

E51

E52

$$N \longrightarrow N \longrightarrow F_3C$$

$$N = - \left( \begin{array}{c} N \\ N \\ O \end{array} \right) = \left( \begin{array}{c} N \\ N \\ N \\ O \end{array} \right) = \left( \begin{array}{c} N \\ N \\ N \\ O \end{array} \right) = \left( \begin{array}{c} N \\ N \\ N \\ O \end{array} \right) = \left( \begin{array}{c} N \\ N \\ N \\ N \\ N \end{array} \right) = \left( \begin{array}{c} N \\ N \\ N \\ N \end{array} \right) = \left( \begin{array}{c} N \\ N \\ N \end{array} \right) = \left( \begin{array}{c} N \\ N \\ N \end{array} \right) = \left( \begin{array}{c} N \\ N \\ N \end{array} \right) = \left( \begin{array}{c} N \\ N \\ N \end{array} \right) = \left( \begin{array}{c} N \\ N \\ N \end{array} \right) = \left( \begin{array}{c} N \\ N \\ N \end{array} \right) = \left( \begin{array}{c} N \\ N \\ N \end{array} \right) = \left( \begin{array}{c} N \\ N \end{array} \right) = \left( \begin{array}{c}$$

E55

E56

E58

E59

E60

E62

$$Pr_2NSO_2$$
 $O$ 
 $N$ 
 $O$ 

E63

E64

E66

E67

E68

$$\mathsf{MeSO}_2 \xrightarrow{\mathsf{CI}} \mathsf{N} \xrightarrow{\mathsf{N}} \mathsf{O} \xrightarrow{\mathsf{N}} \mathsf{O}$$

E70

$$N-0$$

E71

E72

E74

Me

t-Bu-N

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

O

N

E78

E79

E82

$$H_3C$$
 $N$ 
 $O$ 
 $N$ 
 $O$ 

E83

E85

E86

E89

E90

E91

E93

E94

E95

E97

E98

E99

E102

E103

E104

(1S,4S)-2-[4-(3-Piperidin-1-ylpropoxy)benzoyl]-2,5-diaza-bicyclo[2.2.1]heptane dihydrochloride

E105

E106

E107

E109

E110

E111

E113

E114

E115

$$O$$
 $N$ 
 $O$ 
 $F_3C$ 

# E117

$$CI$$
 $O$ 
 $N$ 
 $N$ 
 $O$ 
 $F_3C$ 

# E118

## E119

$$F_3C$$

$$O$$
 $N$ 
 $O$ 
 $F_3C$ 

E122

$$O$$
 $N$ 
 $O$ 
 $F_3C$ 

E123

E124

or and a pharmaceutically acceptable salt thereof.

- 3. (Previously Amended) A pharmaceutical composition which comprises the compound of claim 1 or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier or excipient.
- 4.-6. (Cancelled)
- 7. (Currently Amended) A method of treatment of <u>cognitive impairment</u> which comprises administering to a <u>host human</u> in need thereof an effective amount of a compound <u>of</u> claim 1 or a pharmaceutically acceptable salt thereof.
- 8. (Cancelled).